Penrose, (R. A. F.)

SPECIMEN COPY

Of the "AMERICAN SUPPLEMENT" to the "OBSTETRICAL JOURNAL OF GREAT BRITAIN AND IRELAND," for March, 1874.

The "OBSTETRICAL JOURNAL" is published monthly, each number, including the "SUPPLEMENT," containing 80 pages 8vo. Price $5 00 per annum, in advance. Subscriptions can commence with any number. Specimen numbers 50 cents.

Published by HENRY C. LEA,
NOS. 706 AND 708 SANSOM ST., PHILA.

AMERICAN SUPPLEMENT.

Original Communications.

A Lecture on the Mechanism and Treatment of Breech Presentations.

By R. A. F. PENROSE, Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania.

HAVING discussed the causes and diagnosis of breech presentations at my last lecture, we will now proceed to the study of the mechanism and treatment.

Statistics show that one child out of three is lost when presenting by its breech; they also show that breech presentations occur, perhaps, once in fifty labors. It is evident, then, that one of the chief causes of mortality to the child, during labor, is this, comparatively, common presentation, and that a correct knowledge of its mechanism and treatment is more important to the practitioner than almost any other subject in Obstetrics, save, perhaps, that of hemorrhage.

Mechanism.—For the reasons that I have already given you, in discussing vertex presentations, we may take, in considering the mechanism of breech presentations, at the superior strait, six points of departure, viz., the four inclined planes, the symphysis pubis, and the promontory of the sacrum; in other words, we classify all breech presentations, under six positions; three of these we designate as *sacro-anterior* positions, and three as *sacro-posterior* positions. I shall call that position the *first*, where the

sacrum of the child is in relation with *left anterior* inclined plane; hence, the first position of the breech is the *left sacro-anterior* position. This position is by far the most common, and the cause is evident. In consequence of the presence of the sigmoid flexure of the colon on the left side, the child has more room, and greater latitude of movement in this first position than in any other; hence, the causes which regulate the position of the fetus in utero—and which you now all so well understand—determine the preponderating frequency of this position. If this reasoning be correct, the very same causes should make the next most common position of the breech, that, where the sacrum is directed *behind*, and to the *right* side of the pelvis. The statistics of all observers show that this position, viz., the *fourth*, or the *right sacro-posterior* position *is* the next most common position. Naegèle gives us statistics of one hundred and sixty-three cases of breech presentations; of these, *one hundred and twenty* were in the *left sacro-anterior* position, and *forty* were in the *right sacro-posterior* position.

In studying the mechanism of breech presentations, we may take the *first* position as the *typical* one; in this position, the dorsal plane of the child is in front, and to the left. Before labor comes on, the child sits in the uterus, its head *moderately* flexed, its limbs flexed, and in more or less complete contact with its anterior plane. When the mouth of the uterus is dilated, and the bag of waters ruptures, the irregularity of the presenting part permits *all* of the liquor amnii to escape; hence, the walls of the uterus come into intimate contact with the child, and thus the flexion of the head is perfected, and the limbs are pressed close to the fetal body. The *first* effect of uterine contractions, then, in the second stage of labor, is *adaptation*, which, in breech presentations, means the complete flexing of the head, and the squeezing of the limbs, as closely as possible, to the body.

The next change is *descent*. The breech—under the propelling powers of labor—slowly descends into the pelvic cavity, the sacrum sinking down the left anterior inclined plane, and, in this *oblique* position, the breech reaches the *floor* of the pelvis. Merely for convenience, in holding this fetal manikin, I shall suppose, in my description, that the inferior extremities are extended along the child's anterior surface. Having reached the floor of the pelvis, the breech, of course, can advance no further in the direc-

tion, in which—up to this moment—it has been urged; a *new* force—the force of *resistance*—is now impressed upon it, and a *tendency* to *rotation*, or the *resultant* movement, is developed. I say a *tendency* to rotation is developed, because the conditions now are not identical with those we studied in vertex presentations; in vertex presentations, the head of the child, *large*, and *hard*, affords ample force of resistance to secure a *complete* rotation, or resultant movement; while, in breech presentations, the comparatively small diameters of the breech, with its soft and yielding structure, develop but little force of resistance; and hence, constantly, rotation of the breech *does not occur at all*, or does so *only partially*. However, I am now describing a *theoretical* case; and, after this explanation, will suppose that a sufficient force of resistance is furnished to secure a *complete resultant* movement; under this force of resistance, in the case before us, and, in consequence of precisely the same causes that give us rotation in vertex presentations, the *anterior* hip sweeps to the front, and gets beneath the symphysis pubis, while the posterior hip goes into the hollow of the sacrum. The shoulders and head, tightly grasped by the walls of the uterus, do not participate in this movement, but retain their original oblique position; and hence, there is a twist in the loins of the child. The *anterior* hip now becomes fixed beneath the pubic arch, while the posterior or sacral hip—*as the only part free to move*—under the influence of the propelling forces of labor, *slowly* advances, sweeping along the hollow of the sacrum and the distended perineum, and describing that arc of a circle, with which you are all so familiar in vertex presentations. I say the posterior hip *slowly* advances, for though I describe the change in a few words, yet, in a primipara, it may take hours for the soft and yielding breech to stretch the rigid tissues of the perineum and vulva sufficiently to permit even the anterior hip to appear at the opening; and, after this, a long time may elapse before the posterior buttock is seen, the firm margin of the rigid perineum slipping into the fissure between the nates, and defying, sometimes, for hours, the efforts of nature to free it from its grasp. Ultimately the breech is expelled. Should the shoulders have remained oblique in the uterine cavity, the loins now untwist, and a movement of restitution takes place. The shoulders now engage at the superior strait, more or less nearly in the *right oblique* diameter; the arms, in a typical case,

where no traction has been made on the inferior extremities, are kept, by the grasp of the uterine fibres, flexed, and with the elbows against the sides of the thorax. In artificial breech presentations—that is, in cases of version, and in all other cases where traction has been made on the lower extremities, the body is dragged away from the arms, which, in consequence, become extended along the sides of the head. In a typical case, then, the shoulders and arms engage, as I have described, in the right oblique diameter; the bis-acromial diameter, four inches, being, more or less accurately, in relation with the right oblique diameter, which is five inches. In this oblique position, the shoulders reach the floor of the pelvis; here, in consequence of the greater bulk of the advancing shoulders, *fortunately*, a force of resistance is met, much greater than that received by the buttock; and hence, the resultant movement, or rotation, takes place—not always, by any means, but much more frequently, and much more completely than is the case with the nates. I say *fortunately*, this rotation of the shoulders generally occurs spontaneously. Since *rotation of the shoulders*, in *breech presentations*—whether spontaneous, or whether secured by the manipulations of the medical attendant—*is of vital importance* to the subsequent successful termination of labor. This rotation of the shoulders brings the anterior shoulder, with its flexed upper extremity, beneath the pubic arch, while the posterior shoulder and flexed extremity go to the hollow of the sacrum.

The head now offers at the superior strait, *the cavity of the uterus almost empty*, while the uterine walls—in consequence—*exert little or no grasping power over it;* hence, the rotation of the shoulders places it—more or less accurately—with the face looking toward one iliac fossa, and the occiput to the other; and it is for this reason, that *rotation of the shoulders* is of such *vital* importance in breech presentations.

The transverse diameter of the superior strait is its longest diameter, being five and a quarter inches; the longest diameter of the child's head is the occipito-mental, five inches; *hence*, when the head offers at the superior strait, with the face looking to the iliac fossa, in other words, in the transverse diameter, *even though it be completely extended*, it can offer *only five inches*, and, therefore, can *easily* and *readily* engage and descend.

When the head engages at the superior strait, in a breech pre-

sentation, an ensemble of conditions is presented, peculiar and entirely exceptional; *apparently*, labor is almost terminated; the body of the child, as far as the umbilicus, is already delivered; when, just at this seemingly auspicious moment, a peril presents itself—so grave, a danger, so imminent, that the child's life may be lost in a few moments, and the labor may be greatly prolonged. This peril consists, as I have just remarked, in *a combination of dangers*. In the first place, as soon as the body of the child is delivered as far as the umbilicus, the cord must, necessarily, be compressed, which compression is vastly increased when the more bulky and hard head engages. This compression of the cord will vary with the relative size of the head and pelvic cavity, and, also, with the location of the cord; it is always dangerous; but, at times, it is sufficient to suspend, completely, the feto-placental circulation, and to occasion rapid asphyxia. Again, when the head engages at the superior strait, the uterine cavity becomes, practically, empty; this great diminution in the size of the uterus cuts off, *almost entirely*, *the flow of blood to the placenta*, and causes, at the same time, *the placenta to begin to separate from the uterus*, either of which conditions will rapidly asphyxiate the fetus, even if the cord be not compressed.

Here, then, are *three inevitable conditions*, *that cannot*, in any way, be avoided, any *one* of which will cause speedy death, if prolonged for only a few minutes. *Every child* born by its breech *must experience* these conditions, and hence the fatality of breech presentations, when improperly treated, is easily explained.

At this moment of supreme danger, when—as we have just seen—*a few seconds of delay* may make the difference of life or death to the child; at this moment, when *every* force of labor is needed, to accomplish a rapid expulsion of the head, *the force*—which, until now, had done almost everything, suddenly is annihilated, and the child can only be rescued from inevitable destruction by the application of *new forces*, and the skill and knowledge of the attendant. The force *now lost* is that of the uterus. When the head engages at the superior strait, the uterine cavity is almost empty; hence, its expelling power is gone, gone, at the very moment when most needed. Fortunately, the pressure which the head makes on the rectum and bladder, as it sinks into the pelvic cavity, gives rise to considerable irritation,

and causes the mother to voluntarily strain; hence, the emotion and volition of labor step in to save the—otherwise doomed—child, at the moment, when, the automatic and reflex uterine forces desert it. These, then, are the peculiar conditions and dangers which belong to every case of breech presentation.

Let me suppose, now, in the case under consideration, that the head is offering properly—that is, transversely—at the superior strait; urged by the straining efforts of the mother, it engages and *reaches the floor of the pelvis in this transverse position, rotation does not take place until the force of resistance is secured;* then, and not until then, the occiput is placed beneath the symphysis pubis, while the face goes into the *lower part* of the sacrum and the distended perineum; and, presently—should the *vis à tergo* be sufficient—the expulsion will be accomplished.

As, I have already stated, the mechanism of the *first* position of breech presentations, is the *type* of the mechanism of all other positions in breech presentations; and, therefore, little remains to be said, in order to give you a clear comprehension of the whole subject. The *second* position—the *right sacro-anterior* position—has a mechanism identical with the first. In the *third* position—the *sacro-pubic*—the hips and shoulders will rotate, as they did in the first position, when, the head will be found, in consequence, looking more or less transversely, precisely as in a first or second position. Should, however, from any cause, rotation not take place, or should the case be conducted by an ignorant attendant, who does not understand the mechanism of labor, and, when rotation fails to take place, does not secure it by proper manipulations, then, the head will offer at the superior strait, not transversely, or even obliquely, but with the face looking *directly back.* The antero-posterior diameter of the superior strait is *only four inches;* a head offering, with its occiput directly in front, and its face looking back, is *always more or less extended;* if completely extended, its occipito-mental diameter, *five inches,* offers, if partially extended, the occipito-frontal diameter, four inches, offers to the four-inch diameter of the strait, the head cannot pass, and labor is arrested. Unfortunately, however, in consequence of the conditions which we have studied, *delay,* even for a few moments, at this period of labor, is *necessarily fatal* to the child; and, therefore, the principle is clearly established, that *rotation of the hips* and *rotation of the shoulders,* in breech pre-

sentations, is almost essential to the *successful termination* of labor for the child.

The mechanism of the sacro-posterior positions can also be stated in a few words. Take the *fourth* position, or the *right sacro-posterior* position, as the type; here, the dorsal plane of the child looks behind, and to the right; the breech descends—the sacrum of the child sinking down along the right sacro-iliac synchondrosis, and, *in this oblique position*, it reaches the floor of the pelvis; rotation now occurs, which brings the *anterior* hip to the symphysis pubis, and *the hips and shoulders* are finally expelled, *precisely as in sacro-anterior positions*. This rotation of the hips and shoulders, *necessarily*, places the head *transverse* at the superior strait, and the labor terminates by the occiput getting beneath the pubic arch, just as if the case had been a primitive sacro-anterior position. Should, however, from any cause, complete rotation of the hips and shoulders not take place, the head, of course, will not be made to assume the transverse position at the superior strait, but will engage and descend in the oblique diameter; in most instances, even in this case, as soon as the head meets the force of resistance, the occiput rotates to the pubic arch. Sometimes this anterior movement does not occur, but the occiput goes into the hollow of the sacrum, while the face gets *behind* the symphysis pubis; as the descent of the head progresses, the nape of the neck rests against the anterior edge of the perineum, and the head is finally expelled, *the face* appearing beneath the arch. The *fifth* position, the *left sacro-posterior*, has a mechanism identical with the fourth. The *sixth position*, the *sacro-sacral*—like its analogue, the sacro-pubic—may have rotation of the hips and shoulders, which causes the head to assume an oblique, or even a transverse position, at the superior strait, and the labor terminates by the occiput going into the hollow of the sacrum, or, at times, even coming beneath the arch. In certain rare cases, rotation might not happen; then, the head would offer at the superior strait, more or less extended, and with the face directly in front; of course, it could not pass in this position, and labor would be impossible; at last, however, delivery might be secured by the following mechanism. The chin might be forced well over the top of the symphysis pubis, and the anterior part of the child's neck be pressed closely against the inner surface of the symphysis; if now, the expelling effort

were very strong, the occiput—as the only part of the head free to move—might descend into the pelvic cavity, along the hollow of the sacrum, and, finally, the head might be expelled, the *anterior* part of the neck getting under the arch of the pubis, and the occiput appearing *first* at the vulva. Such a mechanism, implying, as it does, a greatly prolonged labor, would be, necessarily, fatal to the child.

We come now to the all-important subject of the treatment of breech presentations. It is evident, after the description I have given, that the earlier parts of a labor by the breech are tedious; that the danger to the child does not begin, until its body is born, as far as the umbilicus, and the head engages at the superior strait; it is also evident, though the *earlier* parts of labor may last for many hours without detriment to mother or child, that the *final part*—that is the delivery of the head—*after it begins to engage at the superior strait*, cannot be *prolonged many minutes without necessarily* causing the death of the child. It is clear, too, that at this supreme moment, when the child's fate hangs in the balance, and a very rapid termination of labor *alone* can save it, that, at this supreme moment, the *chief force* of labor, *up to this time*, is suddenly annihilated, and, unless a *new force*, or forces, be applied, either by nature, or by the attendant, the child cannot be saved.

From these considerations, then, we draw the following conclusions. In breech presentations, the *first* stage of labor should be *thoroughly* accomplished, before the second stage begins. Hence, we *never* rupture the bag of waters, knowing how very valuable it is in dilating, safely and thoroughly, the external organs; the woman should be kept quiet, so that no movement on her part may cause a premature rupture of this important dilator.

During the second stage of labor, we should make no attempt to hasten the delivery of the breech; it may be hours, especially in a primipara, before the soft and yielding nates overcome the resistance of a rigid perineum; yet this delay is not dangerous, while it secures a *complete stretching* of the structures, through which, at the close, we wish to bring the head with great rapidity. In this part of labor, then, the only precaution necessary is to favor, or cause *rotation of the hips.*

At last, the breech is born; the lower extremities, if not be-

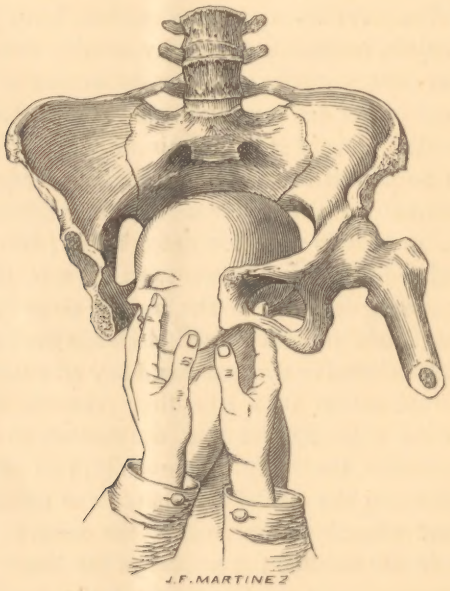
fore, are now extended and delivered; these, in a *natural labor*, should be merely supported, and the delivery should be trusted to nature, until the body is expelled as far as the umbilicus. The cord should now be pulled a little down, so that it may not be too much stretched, or, if it be between the nates, it should be freed, and should be brought opposite one of the sacro-iliac symphyses.

About this time the uterine force is rapidly failing, and *new forces* must be applied. One of these *new* and *indispensable* forces is the voluntary bearing-down efforts of the mother. The woman should be directed to use her utmost effort; the emotion of labor should be stimulated, by assuring her that the safety of her child, in great measure, depends now upon herself. Under this *new* force, the shoulders rapidly descend; the arms, in a typically natural case, flexed, and the elbows in contact with the sides of the thorax; should, however, one or both arms become extended, they must be brought down, in the way I shall presently describe, when speaking of *artificial* breech presentations, or version. As soon as the shoulders have reached the floor of the pelvis, *prompt* and *complete* rotation must be secured by forcing the posterior shoulder into the hollow of the sacrum; this movement places the head *transverse* at the superior strait, in which position, even if it be *completely extended*, there will be ample room to permit rapid descent and delivery. Here, the supreme moment of labor is reached; the process may have lasted *safely*, up to this time, for many hours; but now, a *few minutes of delay* are fatal. The question, then, is, How shall we secure the quickest delivery? The uterine power is lost; traction on the body of the child not only extends the head, but may *damage the spinal cord beyond the possibility of recovery*; a *vis à tergo* is required, rather than *any force from the front*, and we supply this *vis à tergo* by directing the mother to *strain to her utmost;* supporting the body of the child, two fingers should be insinuated along the *side of the pelvis;* the head, recollect, is *transverse*, and placed at the root of the nose, or, if this cannot be done, in the mouth; the fingers of the other hand should be placed supportingly on the *back* of the head. In much less time than I have occupied in giving you these directions, the head descends into the pelvic cavity; *when it has reached the*

floor of the pelvis, and *not until then*, the rotation of the occiput to the symphysis pubis should be secured, and, in a few seconds, the mother continuing her straining efforts, the child will be expelled.

All works on obstetrics show the head *rotated, with the face in the hollow of the sacrum, before* it has reached the floor of the cavity; assistance is represented as rendered by the fingers *inserted along the perineum.* The posterior depth of the pelvic cavity is five inches, for the bony pelvis, and four or five inches for the distended perineum, in all, say *nine or ten inches;* hence, it is evident that, when the face is *where the books represent it to be*, viz., in the hollow of the sacrum, your fingers will scarcely reach beyond the coccyx, and you *will not be able*, in ordinary cases, to apply them, *as represented, on* the sides of the face.

I show you here a drawing I have had made to illustrate what, I deem, a very important principle in the proper management, not only of breech presentations, but also of version.



You will observe the head is represented as *transverse* in the pelvis; the lateral depth of the pelvis is three and a half

inches; *hence, when the head is transverse*, the fingers inserted on the *side of the pelvis, can easily reach to the superior strait*, and can easily be applied to the root of the nose, or in the mouth, as shown in my drawing, and the head can *quickly* and readily be *conducted—still in the transverse diameter*—to the floor of the pelvis.

We constantly meet with cases where the mother cannot supply the necessary expelling power, or does so inefficiently, at the moment, when, the child is doomed to certain destruction, unless delivered rapidly. Here, the almost universal practice is to apply the forceps. An obstetrical writer and teacher can scarcely be found who does not direct, in cases of breech presentation, to have the forceps ready, and when the moment of grave peril comes, to apply them. Now, gentlemen, I wish to be understood, and quoted, as stating absolutely and positively, *that the forceps* are *seldom or never required*, in the delivery of the head, in breech presentations. The use of this instrument, so universally recommended, is a *rough, unintelligent* application of *unnecessary* and *badly applied force*. A thorough knowledge of the mechanism and physiology of breech presentations reveals forces amply sufficient to accomplish the, much-to-be-desired, speedy delivery of the head; in other words, *the power*, in such cases, should reside in the well-instructed brain of the intelligent practitioner, and not be sought for in the rude grasp of his iron instrument.

When you meet with a case of breech presentation, where the head has reached the superior strait, and the mother cannot supply the necessary expelling power, *do not think of the forceps, but apply your hand or hands on the lower part of the abdomen*, or an assistant can make the pressure for you, and *press directly down on the head;* you can, by this proceeding, *apply any amount of a vis à tergo;* you can *supplement entirely* the lost force of the uterus, and the lost force of the mother's efforts. Take this idea, then, with you, that, in almost all cases of breech presentations, the forceps are unnecessary, and that the rapid delivery of the head can always be *easily* and *quickly* secured *by the bearing-down efforts of the mother*, aided, or even *replaced, by the bearing-down efforts of the attendant.*

Monthly Summary.

DISEASES OF WOMEN.

A Remarkable Recovery from Abdominal Section.—Dr. Cheever reports the following case. Mrs. L., a young and healthy woman, has borne two children. The first was born in June, 1871; the second, April 9th, 1873.

In July, 1872, a tumor was discovered in the abdomen, on the right side, half way between the ribs and groin, as large as a butter-nut, and movable under the skin. It slowly increased, but did not interfere with pregnancy. The last child was a male, weighing nine pounds. The labor was natural. The mother was up and dressed ten days after the labor.

The tumor began to grow rapidly after the birth of the last child. The patient suffered chiefly from weight and distension, but not from pain.

On examination, in June, 1873, it was found that an oval, hard mass—somewhere between an ostrich egg and a small musk-melon in size—occupies the right side, and part of the centre of the abdomen. At one point—near the umbilicus—it seems adherent to the thinned skin. Otherwise, it is freely movable, and can be swung from side to side. There is no sign of softening, edema, or fluid. It is dull on percussion, though the resonant sound of the bowels is transmitted through it. When the patient tries to rise, while lying on her back, thereby putting the abdominal muscles in contraction, the tumor becomes firmly fixed. The hand can be pressed in between the tumor and the pubis. The pelvis is empty. The uterus is normal in size, position, depth, and mobility. There is no bad symptom from the bladder or rectum. The patient is otherwise in pretty good health, though a little anemic. An operation was decided on.

A vertical cut, about four inches long, two inches to the right of the umbilicus, was made. My design was to cut over the rectus, rather than in the linea alba, that I might thus see the relation of the muscular fibres to the tumor. The knife penetrated at once into the tumor, without any appearance of muscle. Everything here was absorbed by the growth. The substance of the tumor was sarcomatous, firm, whitish, and homogeneous. There was no fluid. As it was found impossible to reach the edge of the tumor through the single vertical incision, this was prolonged to six inches, and a cross cut was made to the right, four inches. Here, by careful dissection, the aponeurotic sheath was made out, lying over the tumor, and it was demonstrable that the foreign growth was beneath, or in the abdominal muscles. Was the peritoneum involved? Dissecting towards

the right, the edge of the tumor was reached, and it was found that it could be lifted and separated from its bed. While conducting this enucleation as gently as possible with the hand, two fingers slipped, without warning, into the peritoneal cavity. The peritoneum was here, and further beneath, adherent to the under surface of the tumor.

The tumor could now be demonstrated to be free from internal attachments, except to the peritoneum. What course should be pursued? The alternative was a very trying one. To leave it was almost certainly fatal. It had been so scored and disturbed that it must slough; and it communicated beneath, by a lacerated wound, which it was impossible to close, with the peritoneal cavity. On the other hand, to remove it, would take away a portion of the abdominal wall, muscles, and peritoneum. The patient's general condition was good; breathing quiet; pulse full; no syncope or vomiting. I decided to complete the operation.

Proceeding now with excusable boldness, it was easy to remove the tumor, by free cutting and dissecting. This was at once done. On the left side, the rectus muscle was not much disturbed. On the right, it was quite destroyed. A strip of peritoneum, fully four inches wide at its widest part, and perhaps six inches long, tapering down at its extremities, was removed with the tumor. The abdominal cavity was now largely uncovered. The colon and stomach, as well as the small intestines, were visible. As quickly as possible, two large, warm sponges, were put in the site of the tumor, and the hernial protrusions repressed. Warmth was applied to the chest, and a brandy enema given. The patient vomited, but soon rallied. A considerable time was consumed in securing vessels all around the incision, of which a great number had to be tied, including the epigastric artery. The cavity of the abdomen was sponged free of clots, and long, deep, silk sutures were passed. It was impossible to bring the peritoneal edges within two inches of each other in the centre of the wound. The ligature-ends were all brought outside, and a separate set of sutures closed—without tension—the three flaps of skin which had been dissected off the deeper parts of the tumor, where it was not incorporated with the skin. Broad, adhesive strips were firmly applied; then cotton wadding, and a binder. The patient was immediately lifted into a warm bed, between blankets, without sheets, and as soon as she roused and complained, she received one-fourth of a grain of morphia subcutaneously.[1] The subsequent history of the operation is given; suffice it to say that menstruation came on seven weeks after the operation. The patient lay upon her back four weeks. She sat up at the end of six weeks. She walked the tenth week.—*Boston Med. and Surg. Journal*, February 19, 1874.

[1] The tumor proved to be a spindle-celled sarcoma.

DISEASES OF CHILDREN.

Case of Obstruction of the Bowels from an undeveloped large Intestine, in a child newly born. By B. Hadra.—Dr. Hadra was called during the month of September, 1873, to see a child newly born. He found that the bowels had not acted, although the child was twenty-four hours old, and the midwife had, several hours previously, administered castor oil. Development, so far as external appearances showed, was perfect; weight was eight or nine pounds, sex male. The infant was vomiting some yellow offensive matter, had not nursed for several hours, and appeared in a partial stupor. From time to time crying, evidently suffering from colic, attended by cramps. The upper part of the abdomen was very hard; the cutaneous veins around the umbilicus were very much enlarged. The bladder was empty, urine had passed freely, and was natural in quality. I endeavored to inject clear water into the rectum, but it returned immediately unchanged in character, without the least signs of having come in contact with fecal matter or meconium. An attempt was made to insert a flexible catheter, but it entered only about two inches, and met with some impediment to its passage which could not be overcome; water injected through the catheter returned, as before, unchanged. I diagnosed some abnormal condition of the parts, and thought it probable that the rectum terminated in a blind pouch, for a communication of the rectum with the bladder was out of the question, as the urine had passed through its natural channel. The formation of an artificial anus was urged, but declined by the parents, and in ten hours the child died.

Post-mortem Examination.—The abdominal cavity was full of excrementitious matter of brown-yellowish color, pouring out from a rupture of the ileum, which was in different parts gangrenous; at the seat of the rupture complete mortification existed to a small extent. The cecum was extremely small and lying near the umbilicus; contained some fecal matter. The entire extent of the colon and rectum was of the size of a raven-quill. The rectum made a short bend, forming a loop, which accounted for the impediment to the passage of the catheter. This undeveloped intestine was filled with a white cheeselike matter, having the appearance of vernix caseosa. The valvula Bauhini was normal. The post-mortem examination has shown that this case was not one that could have been remedied by the operation for artificial anus in any of the regions where it is commonly performed, but shows the necessity of speedily operating in every case where the physician diagnoses obstruction in the rectum, as in thirty-four hours the bowels were in such a condition of gangrene as would have proved fatal under any circumstances.—*N. Y. Medical Journal,* Feb. 1, 1874.

GENERAL INDEX

TO

AMERICAN SUPPLEMENT.

ADAMS, 8; Agnew, 33; Allis, 124; Atkinson, 126; Atlee, 169
Abdominal section, 188
Abortion, causes of, treatment, 4, 9
Acardia, case of, 173
Amenorrhea, from undeveloped uterus, 58
Asphyxia, a speedy method in, 65

BAKER, 4, 58; Ball, 106; Barker, 4, 86, 108; Bartholow, 41; Baruch, 41, 89; Bayles, 92; Black, 89; Bogart, 167; Brickell, 129; Byrd, 65
Bibliographical notices, 14, 30, 46, 62, 94, 111, 142, 159, 174
Breast, abscess of, 108; cancer of, 107
Breech presentations, delivery of the head in, 75; causes of, and treatment, 177
Bronzing of the skin in pregnancy, 22

CATHCART, 151; Cheever, 188; Clark, 61; Cole, 155; Corson, 27; Cotting, 45
Cancer of breast, 107
Cæsarean section in small pelves, 5
Craniotabes, 24
Craniotomy in small pelves, 5

DAWSON, 28; Deane, 91, 185; Dessau, 61; Duer, 49
Dentition, pathological, 138
Diphtheria, treatment of, 49

ESTRAZULAS, 81
Eclampsia, in child, 128; puerperal, 1, 72, 120
Electrolysis, 172
Elephantiasis vulvæ, 161
Endometritis decidualis, two cases of, 145

FOSTER, 158
Fragilitas ossium, 27
Fibroid tumor of corpus luteum, 39; of ovary, 37, 91

GARLAND, 69; Geiger, 46; Gilmore, 136; Goodell, 9, 39, 88

HADRA, 190; Hall, 17; Hand, 22, 46, 61; Hare, 159; Harper, 21; Holmes, 12; Howard, 110; Hunter, 134, 135; Hyde, 155
Hematocele, 80
Hydrometra, 27
Hymen, persistence of, 155

INGHAM, 9, 37
Intermittent fever, 93

JENKS, 1, 8, 12, 14, 24, 30, 39, 46, 62, 74, 97, 104, 111, 113, 142, 145

KIMBALL, 172
Kidneys, floating, 156

LANDER, 75; Lawton, 7; Lee, 90; Leishman, 111; Lusk, 19, 54, 173
Larynx, abscess of, 59
Lead poisoning, relation to vaginismus, 25

McCLELLAN, 78; Minot, 6
Menstruation, precocious, 61
Milk, differences in the proportions of the constituents of, from different breeds of cattle, 78
Murmur, cephalic, in infancy, 17

NEFTEL, 25, 37, 75; Noegerath, 30
Nervous disorders of women, 59, 75
Nevi, injection of persulph. of iron, 46
Nipples, erosion and ulceration of, 108

OBSTRUCTION of bowels in newly born child, 190
Occipito-posterior positions not natural labor, 129
Os uteri, artificial dilatation of, 55, 106
Os uteri, occlusion of, 168
Ovariotomy, 10, 26; vaginal, 136
Ovum, blighted, 104

PARRY, 5, 59; Parvin, 125; Penrose, 35, 177; Peters, 107
Parametritis, 43; in a cow, 9
Perineum, laceration of, 33
Pertussis, treatment of by quinine, 28
Placenta, double, 167
Plural births, 134
Pleurisy, scarlatinous, 110
Polypoid tumor of vulva, 125
Pregnancy, extra-uterine, 7, 21, 69, 102, 151, 169
Pregnancy, extra-uterine, in a deer, 8
Premature labor, induction of, 23
Prolapsus uteri, 39
Puerperal eclampsia, 1, 72, 120, 185
Puerperal eclampsia in child, 128
Puerperal embolism, 71; cerebral, 4
Puerperal fever, 86

QUININE, abortive action of, 86; use of in pertussis, 28

RICE, 74; Rooney, 124
Rötheln, 45

SAGER, 156; Sims, 10, 26; Skene, 55; Smith, 23; Steiner, 62
Sacral tumor, 74
Salutatory, 13
Sarcomatous growths of the uterus, 97, 113
Scarlet fever, 92
Syphilis in children, 60
Syphilis, some sources of infection, 155
Syphilis, transmission of by rite of circumcision, 141

TAYLOR, 60, 141, 159; Thomas, 4; Thompson, 94; Todd, 168
Transactions of the Philada. Obstetrical Soc., 8, 23, 37, 102, 171

UMBILICAL hemorrhage, 61
Urethra, forcible dilatation of, 124
Uterus, hemorrhage from, 12
Uterus, hydatids of, 77
Uterus, inversion of, 89
Uterus, irregular contraction of, 54
Uterus, rupture of, 56
Uterus, sarcomatous growths of, 97, 113
Uterus, subinvolution of, 41, 89
Uterus, undeveloped, 58

VAGINA, occlusion of, 19
Vaginismus, relation to lead-poisoning, 25
Version, cephalic, 20, 35
Version by external manipulation, 135
Vulva, polypoid tumor of, 125
Vulva, varicose veins of, 124

WALL, 77; Walton, 27; White, 138; Whittaker, 72; Williams, 134; Wilson, 128; Wright, 20

YELLOW Fever, communication of, through the mother to the fetus in utero, 80